

30. A method of processing data based on programmed instructions, the method comprising:

demodulating a CDMA-compliant waveform, wherein the CDMA-compliant waveform is processed asynchronously to a sample rate  
5 associated with the waveform during processing of communication chips  
and based on programmed instructions in programmed memory.

31. The method of claim 30, wherein the entire demodulation processing is done asynchronously.

10

## **VIRTUAL FINGER METHOD AND APPARATUS FOR PROCESSING DIGITAL COMMUNICATION SIGNALS**

### **ABSTRACT OF THE DISCLOSURE**

15 An apparatus and method for demodulation of a composite  
signal containing a plurality of multi-path components use a virtual finger.  
The method includes buffering digital samples of a signal into a first  
memory element, randomly accessing the digital samples from the first  
memory element to correlate a particular multi-path component from the  
20 signal, and iteratively accumulating the correlated particular multi-path  
component into a second memory element.